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1AP20 Rec'd PCT/PTO 10 JUL 2006

PATENT APPLICATION

Docket No: 14321.87

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Ippei Shake et al.

Serial No.:

unknown

) Art Unit

) unknown

Filed:

July 10, 2006

Confirmation No.:

unknown

For:

OPTICAL SIGNAL QUALITY MONITORING  
CIRCUIT AND OPTICAL SIGNAL QUALITY  
MONITORING METHOD

## TRANSMITTAL FOR INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing and pursuant to 37 C.F.R. § 1.97 is an Information Disclosure Statement, which includes the following statements, if any, required variously by 37 C.F.R. § 1.98:

X Statement of relevance of selected cited references not in the English language which are not translated.

— Statement that selected cited references are substantially cumulative of an enclosed or previously submitted reference.

— Statement that selected cited references were previously cited by or submitted to the United States Patent and Trademark Office in a prior application which is relied upon for an earlier filing date under 35 U.S.C. § 120.

\* Admitted only in California

§ Admitted only in Virginia

A. Additional Materials Required Due to Content of Information Disclosure Statement

Transmitted are the following documents in addition to the Information Disclosure Statement as required variously under 37 C.F.R. § 1.98:

- ☒ Form PTO-1449 listing six (6) references submitted for consideration.
- ☒ A copy of each of the references listed on the Form PTO-1449.
- ☒ English translations of two (2) of the references listed on the Form PTO-1449 which are not in the English language.
- ☐ Copies of the following documents from the prosecution of a previous, related application:
  - ☐ Form PTO-1449 AND INFORMATION DISCLOSURE STATEMENT; and
  - ☐ Form PTO-892

B. Additional Materials Required Due to Timing of Filing of Information Disclosure Statement

The transmitted Information Disclosure Statement is being filed within one (1) of the following four (4) time periods:

- I. ☒ Prior to the later of either three (3) months following the filing date or the mailing of a first Office Action. Accordingly, no materials other than those listed above are enclosed.
- II. ☐ Following the latter of either three (3) months following the filing date or the mailing of a first Office Action, but before the mailing of a final Office Action or a Notice of Allowance. Accordingly, to secure consideration thereof, one (1) of the following is also enclosed:
  - ☐ Promptness Certification; or
  - ☐ Check No. \_\_\_\_\_ in the amount of \_\_\_\_\_ constituting the submission fee set forth in 37 C.F.R. § 1.17(p).
- III. ☐ After the mailing of a Notice of Allowance, but before payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
  - ☐ Promptness Certificate;
  - ☐ Petition for Consideration; and

10/585532

AP20 Rec'd PCT/PTD 10 JUL 2006

\_\_\_\_ Check No. in the amount of \_\_\_\_ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).

IV. \_\_\_\_ After payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:

\_\_\_\_ Petition to Withdraw from Issue; and

\_\_\_\_ Check No. \_\_\_\_ in the amount of \_\_\_\_ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).

C. Fees

The Commissioner is hereby authorized to charge payment of or any deficiency in the following fees associated with this communication, or to credit any overpayment thereof, to Deposit Account No. 23-3178. A duplicate copy of this letter is enclosed.

X Any fee required in relation to filing of this letter or any documents transmitted therewith.

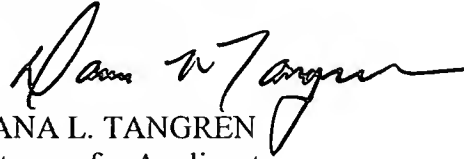
\_\_\_\_ The submission fee set forth in 37 C.F.R. § 1.17(p) in the event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that any Promptness Certificate submitted meets the requirements of 37 C.F.R. § 1.97(e).

\_\_\_\_ The submission fee set forth in 37 C.F.R. § 1.17(p).

\_\_\_\_ The petition fee set forth in 37 C.F.R. § 1.17(i)(1).

Dated this 10<sup>th</sup> day of July 2006.

Respectfully submitted,



DANA L. TANGREN  
Attorney for Applicant  
Registration No. 37,246  
Customer No. 022913  
Telephone No. 801.533.9800

10/585532

PATENT APPLICATION

Docket No: 14321.87

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECORDED 10 JUL 2006

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Ippei Shake et al.

Serial No.: unknown

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Confirmation No.: unknown

For: OPTICAL SIGNAL QUALITY MONITORING  
CIRCUIT AND OPTICAL SIGNAL QUALITY  
MONITORING METHOD

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INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed listed references are disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof that is not a US patent document is also enclosed.

Statement of Relevance of References Listed  
Unaccompanied by English Translation  
Under 37 CFR § 1.98(a)(3)

In accordance with 37 CFR § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided.

Japanese Publication No. 06-076194: PURPOSE: To attain cost reduction in an optical signal monitor receiver which monitors an optical signal by applying photoelectric conversion as keeping a performance. CONSTITUTION: This receiver is comprised by providing with filters 11,-11N unified with a connecting plug for input/output with the same structure and which fetch a signal obtained by applying the photoelectric conversion to the optical signal whose luminance is modulated by transmission information via the connecting plug and extract a low-pass frequency component with a cutoff frequency in accordance with individual bit rate that can be taken by the transmission information and a cabinet 13 fittable in either of the filters 111-11N, and a photoelectric conversion means 15 which performs photoelectric conversion and supplies a signal obtained by the conversion to the filter fitted in the cabinet 13 via the connecting plug, and an interface means 17 which outputs the low- pass frequency component extracted by the filter fitted in the cabinet 13 to the outside via the connecting plug.

Japanese Publication No. 2001-201401: PROBLEM TO BE SOLVED: To improve quality evaluation accuracy with a single circuit, regardless of bit rate of measured signal, signal form or modulation form. SOLUTION: A signal process unit 1503 has a strength distribution estimation part 1505, which estimates axial symmetric points group (a-2) about threshold A from points group (a-1) with a strength higher than the strength threshold A and each (a-1), (a-2) points group makes to level '1', and also estimates axial symmetric points group (b-2) about threshold B from points group (b-1) with a strength lower than the strength threshold B which is decided separately, then each (b-1), (b-2) points group makes to level '0' among sampling points in signal strength distribution obtained with a sampling oscilloscope 1502 and it also has a light signal quality evaluation part 1506 for evaluating a signal to noise ratio coefficient obtained as the ratio of the difference between the average strengths of level '1' and level '0' obtained from the strength distribution in a certain averaging time and the sum of the standard deviation values of level '1' and level '0' in the averaging time.

Japanese Publication No. 2001-217775: PROBLEM TO BE SOLVED: To provide an optical signal monitoring system for monitoring a fault/quality without depending on a modulation system/signal format/signal bit rate when a fault occurs on an optical signal path on an optical network for handling multimedia services having various modulation systems/signal formats/signals bit rates. SOLUTION: An optical layer in an optical network system converts an electric signal to an optical signal of a suitable carrier wavelength and performs signal transmission by applying time division multiplexing to a plurality of optical signals with a single wavelength or applying

wavelength division multiplexing to the optical signals of a plurality of carrier wavelengths. The optical layer does not depend on the modulation system, signal format or signal bit rate of a signal to be handled. Therefore, by performing the analog monitoring of the noise deterioration and waveform distortion of the optical signal on the optical layer, the fault/quality can be monitored without depending on the modulation system, signal format or signal bit rate of the signal. By using this method, the identification of a fault block and route switching are performed.

AP2003/PCT/PTO 10 JUL 2006

Japanese Publication No. 2003-090766: PROBLEM TO BE SOLVED: To provide a method and an apparatus for monitoring optical signal quality deterioration factors which contribute to realization of an economical and reliable optical network having a large communication capacity per service and can accommodate multimedia services having various signal formats and signal bit rates. SOLUTION: The monitoring apparatus 101 has a first and second evaluating parts 105, 107 for obtaining a mean Q-value parameter and waveform deterioration parameters from an optical signal amplitude histogram obtained from an optical signal under test, and a third evaluating part 111 which prescribes both the mean Q-value parameter and the waveform deterioration parameters, to decide whether the main factor of the optical signal quality deterioration is the waveform deterioration or others by comparison, etc., of these parameters, using an initial value or initial characteristics.

Dated this 10<sup>th</sup> day of July 2006.

Respectfully submitted,



DANA L. TANGREN  
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Form PTO-1449

Applicant: Ippei Shake et al.

Serial No.: unknown

Filing Date: July 10, 2006

For: OPTICAL SIGNAL QUALITY MONITORING CIRCUIT AND OPTICAL SIGNAL  
QUALITY MONITORING METHOD

Sheet 1 of 2

Confirmation No.: unknown

Att'y Docket No.: 14321.87

Art Unit: unknown

JAP2006-UPCT/PTO 10 JUL 2006

INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

U.S. Patent Documents

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Issue Date</u>	<u>Name</u>
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Foreign Patent Documents

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Publication Date</u>	<u>Country or Patent Office</u>	<u>Translation</u>
/D.T./ 1	06-076194	03/18/1994	Japan	No
/D.T./ 2	11-223575	08/17/1999	Japan	Yes
/D.T./ 3	2001-201401	07/27/2001	Japan	No
/D.T./ 4	2001-217775	08/10/2001	Japan	No
/D.T./ 5	2003-090766	03/28/2003	Japan	No
/D.T./ 6	2004-48688	02/12/2004	Japan	Yes

Other Documents

(including author, title, pertinent pages, etc.)

Examiner  
Initial\*

Examiner:	/Dzung Tran/	Date Considered:	06/18/2009
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Applicant: Ippei Shake et al.

Serial No.: unknown

Filing Date: July 10, 2006

For: OPTICAL SIGNAL QUALITY MONITORING CIRCUIT AND OPTICAL SIGNAL  
QUALITY MONITORING METHOD

10/585332  
Confirmation No.: unknown  
Att'y Docket No.: 14321.87  
Art Unit: unknown

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### References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

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Examiner:

/Dzung Tran/

Date Considered:

06/18/2009

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.